Description of take location: Atlantic Ocean; States/Territories: AL,CT,DE,FL,GA,LA,MA,MD,ME,MS,NC,NH,NJ,NY,RI,SC,TX,VA.

The proposed research activities (composed of aerial and surface ship surveys, as well as recording devices mounted on the sea floor) in the Atlantic Ocean take-location primarily aim to investigate the impact of anthropogenic sound in the ocean on marine mammal species including both mysticetes and odontocetes. The particular emphasis will be assessing the impact of noise generated by U.S. Navy and Marine Corps operations, including mid-frequency active sonar, low-frequency active sonar, ordnance training, and vessel traffic on marine mammals.

These activities occur most often at designated instrumented training ranges and adjacent waters, but may also occur outside these ranges, for example in more broadly designated Navy operational areas (OPAREAS), military special use airspace complexes, the Atlantic Fleet Active Sonar Training (AFAST) study area, or any of the waters under the responsibility of Naval Facilities Engineering Command Atlantic (NAVFAC Atlantic). Therefore, although these areas in sum cover all waters offshore of the Gulf of Mexico and the east coast of the U.S., we have designated these all as potential take locations due to the focus and purpose of our intended research under the U.S. Navy's election to consolidate ESA and MMPA compliance efforts under a recent "indefinite delivery, indefinite quantity" (IDIQ) request for quotes (RFQ) (see attached).

Regarding time specificity, the research is planned to be performed: during active U.S. Navy and military exercises, immediately before and after such exercises, as well as during inactive periods between exercises.

To better illustrate potential research locations, a partial non-exhaustive list of instrumented ranges, OPAREAS, and complexes are given here.

The OPAREAS and airspace complexes include: Boston, Narragansett Bay, Atlantic City, Virginia Capes (VACAPES), Charleston (CHASN), Cherry Point, Jacksonville (JAX), Key West, AUTEC, and Gulf of Mexico (Western GOMEX offshore TX, and Eastern GOMEX offshore LA, MS, AL and western FL), as well as Naval Sea Systems Command (NAVSEA) Naval Surface Warfare Center (NSWC) at Panama City, FL. These OPAREAS and complexes range across waters offshore of all the states listed in the description summary: AL, CT, DE, FL, GA, LA, MA, MD, ME, MS, NC, NH, NJ, NY, RI, SC, TX, VA.

The Cherry Point, Jacksonville, Key West, AUTEC, and VACAPES OPAREAS include fully instrumented ocean training ranges that may more frequently host major training exercises compared to other OPAREAS. These include Fleet Area Control And Surveillance Facility Virginia Capes (FACSFAC VACAPES), Fleet Area Control and Surveillance Facility Jacksonville (FACSFAC Jacksonville), Atlantic Undersea Test and Evaluation Center (AUTEC) (also known as NATO FORACS AUTEC, or NFA), South Florida Testing Facility (SFTF) at Fort Lauderdale, and the planned Undersea Warfare

Training Range (USWTR) for which the Department of the Navy in summer 2009 issued a Record of Decision planning to develop this range within the Jacksonville OPAREA.

Annual expected take numbers expected for incidental harassment in this region over the five year life of the permit were computed for each species from comparing the total abundance figures for each species in NOAA assessments[1] of stocks from Atlantic regions with those from the same or closely related species from various Pacific regions, yielding a scaling ratio. Annual expected take numbers were computed by multiplying this scaling ratio by the total numbers of on-effort sightings by species from either of two studies: 1) a 5-year boat-based survey between 1991 and 2005 off the waters of the U.S. west coast up to 556 km (300 nmi) offshore (Barlow & Forney, 2007); 2) or for species with more southerly distributions, half the numbers of a 10-year aerial survey of the waters within 25 nautical miles (nmi) of the main populated Hawaiian islands (1993-03 Hawaiian Islands aerial surveys, Mobley, unpublished data; For 1993-98 see Mobley et al., 2000). These scaled figures were adjusted for the expected amount of effort involved in the study with the effort expected in this region from the IDIQ RFQ (i.e., 500 hrs/yr aerial survey, and 95 hrs/yr ship survey). Because the aerial surveys usually occur below an altitude of 1000 ft. (304.8 m), and because the ship survey frequently require close approaches for species and group size identification, all sightings are considered takes. The final expected take figure was multiplied by a factor of 2.0 to attempt to account for variation in the sighting numbers, uncertainty within the computations, as well as potentially unexpected sighting numbers due to seasonal or sub-regional variations in abundance during the study periods. A minimum expected take figure of 50 was used.

[1] NOAA stock assessments from: http://www.nmfs.noaa.gov/pr/sars/species.htm

For more information see:

1) Commander Naval Region Southeast
https://www.cnic.navy.mil/cnrse/index.htm

2) Commander Naval Region Mid-Atlantic
https://www.cnic.navy.mil/cnrma/index.htm

3) Atlantic Undersea Test and Evaluation Center (AUTEC)
http://www.npt.nuwc.navy.mil/autec/

4) Undersea Warfare Training Range (USWTR) Record of Decision and EIS
http://www.navy.mil/search/display.asp?story_id=47380 (press release)
http://projects.earthtech.com/uswtr/USWTR_index.htm (EIS details)

5) Fleet Area Control And Surveillance Facility (FACSFAC)
http://www.vacapes.navy.mil/ (Virginia Capes)
http://www.facsfacjax.navy.mil/ (Jacksonville)

6) EIS sites
http://afasteis.gcsaic.com/docs.aspx (Atlantic Fleet Active Sonar Training (AFAST))
http://www.vacapesrangecomplexeis.com/EIS.aspx (Virginia Capes)
http://www.jacksonvillerangecomplexeis.com/ (Jacksonville Range Complex)
http://www.gomexrangecomplexeis.com/ (Gulf of Mexico)
http://www.navycherrypointrangecomplexeis.com/ (Cherry Point Range Complex)
http://www.navy.mil/oceans/documents.html (EIS & Marine Resource Assessment links)